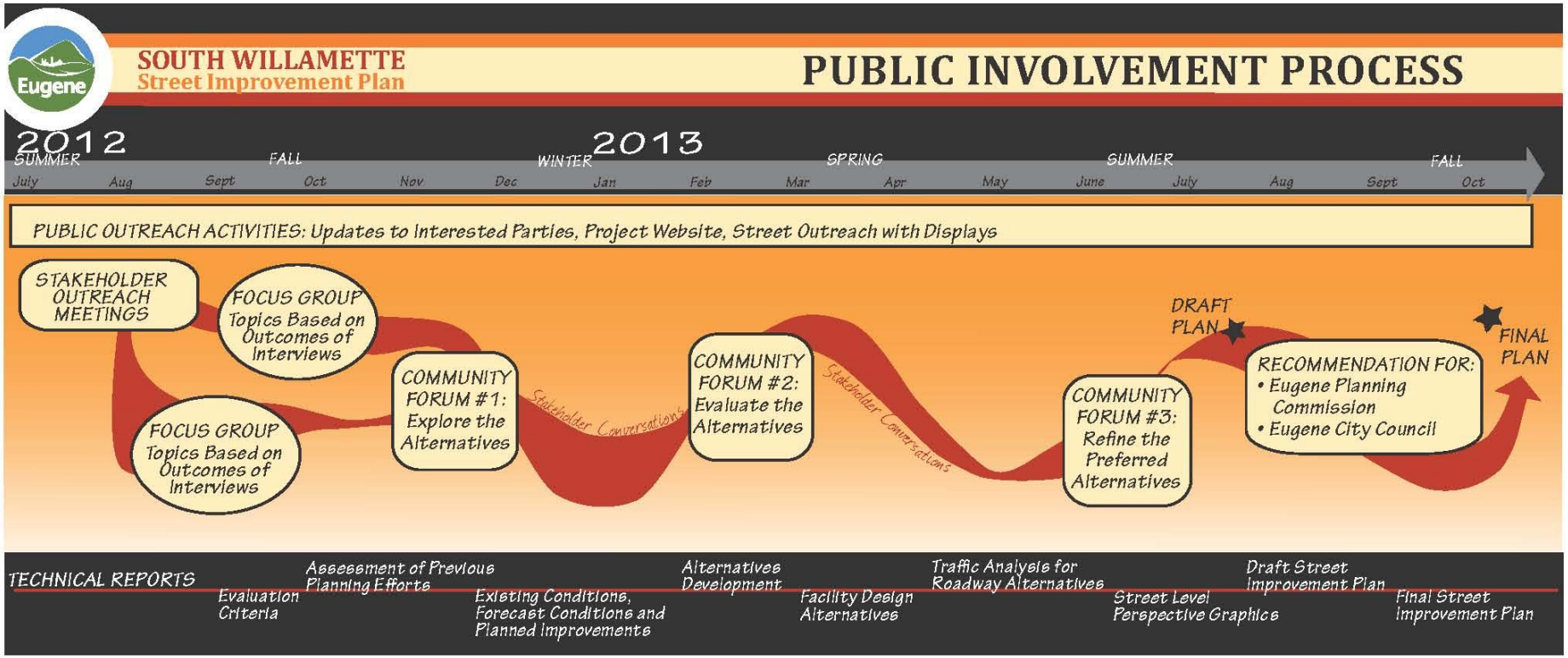
SOUTH WILLAMETTE
Street Improvement Plan

Refine the Preferred Alternatives

June 2013

Community Forum #3

Project Schedule and Outreach



Alternatives Overview

Alternatives Development Process

Stakeholder Outreach

- Conversations with business and property owners, residents, and users of all modes (August, February, May)

Community Concerns

- Community Forum #1 "Explore the Alternatives" (November)
- Community Forum #2 "Evaluating the Alternatives" (February)

Committee Feedback

- Technical Advisory Committee, including LTD, EWEB and Emergency Responders (November, January, May)

Elected/Appointed Official Oversight

- Planning Commission Meeting (November)
- City Council Work Session (January)

Alternatives Screening

Tier 1

- Evaluation of community priorities
- Identification of broad level tradeoffs
- Assessment using qualitative tool (scoring criteria)

Tier 2

- More details and rigorous analysis of the designs

Tier 1: 6 alternatives → 3 alternatives

Tier 2: 3 alternatives → Draft Plan (preferred alternative)

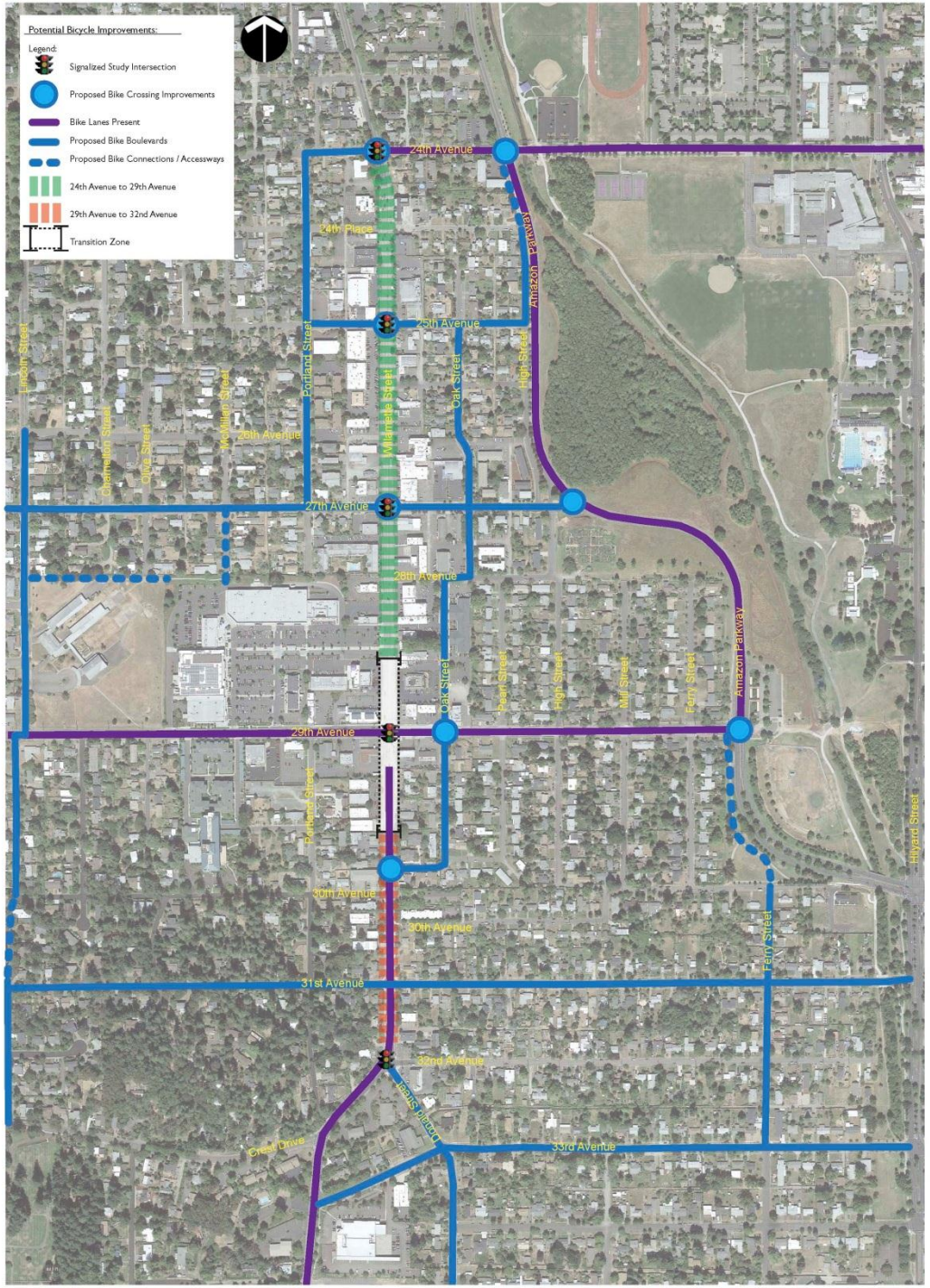
What We've Heard

- Fix the drainage
- Improve the sidewalk environment (utilities, uneven pavement)
- Better bicycle access
- Minimize negative impacts to businesses (construction, parking loss, traffic shift)
- Make it safer (speeding, turn conflicts, bikes on sidewalks)

For All Alternatives

- New roadway pavement
- Drainage improvements
- Improved sidewalks
- Improvements for nearby bike routes
- Enhanced crossing options for bicycles & pedestrians
- Driveway modifications (TBD)

Existing and Proposed Nearby Bicycle Routes



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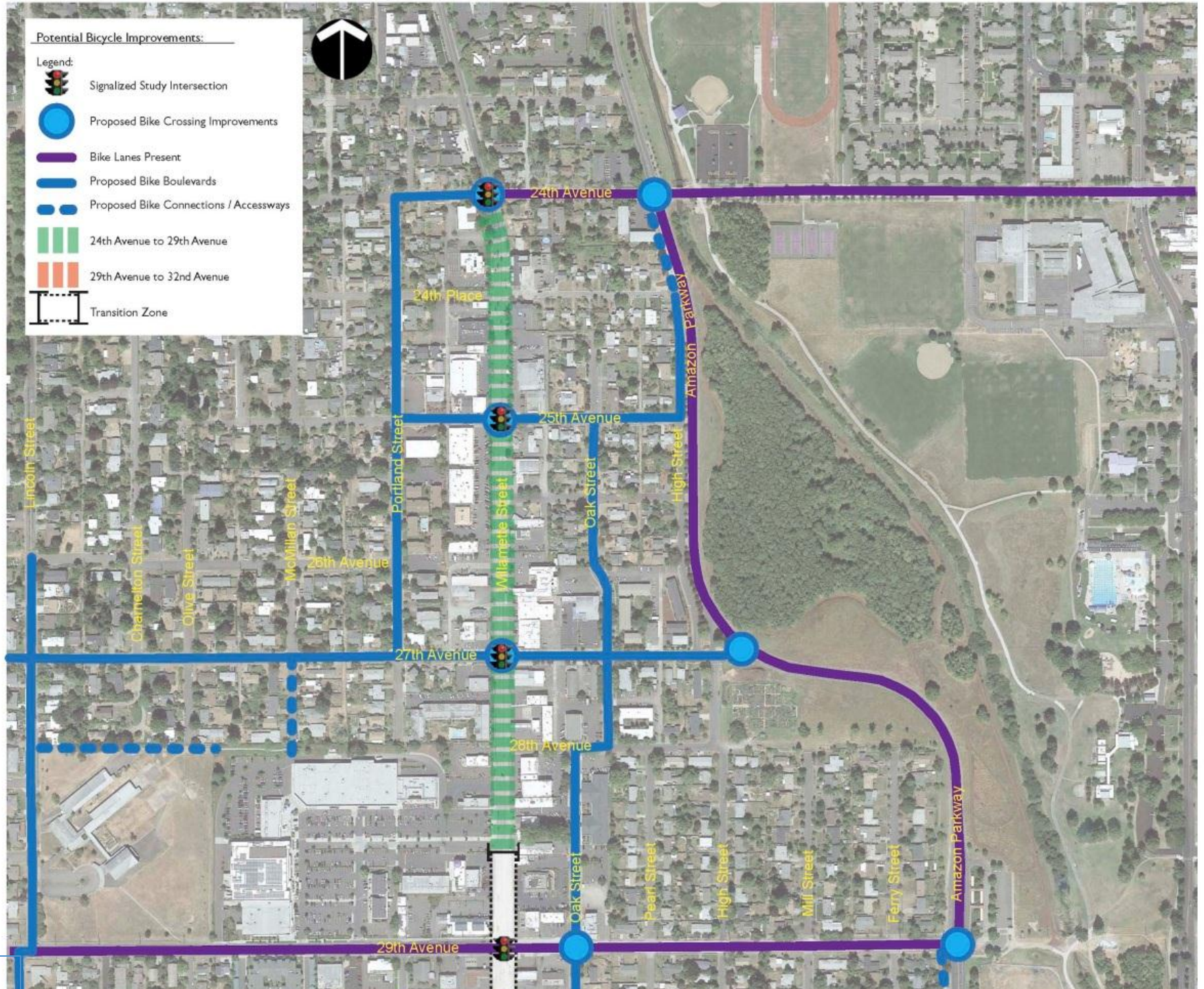
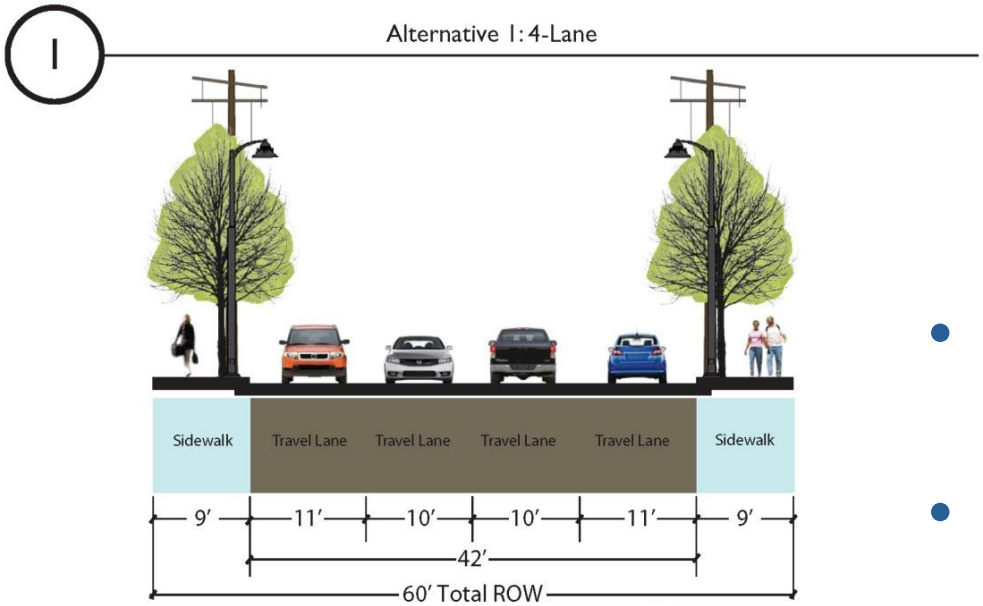

Potential Bicycle Improvements:
Legend:
Signalized Study Intersection
Proposed Bike Crossing Improvements
Bike Lanes Present
Proposed Bike Boulevards
Proposed Bike Connections / Accessways
24th Avenue to 29th Avenue
29th Avenue to 32nd Avenue
Transition Zone
24th Avenue
24th Place
25th Avenue
26th Avenue
27th Avenue
28th Avenue
29th Avenue
Amazon Parkway
Lincoln Street
Charnelton Street
Olive Street
McMillan Street
Portland Street
Willamette Street
Oak Street
High Street
Pearl Street
Mill Street
Ferry Street

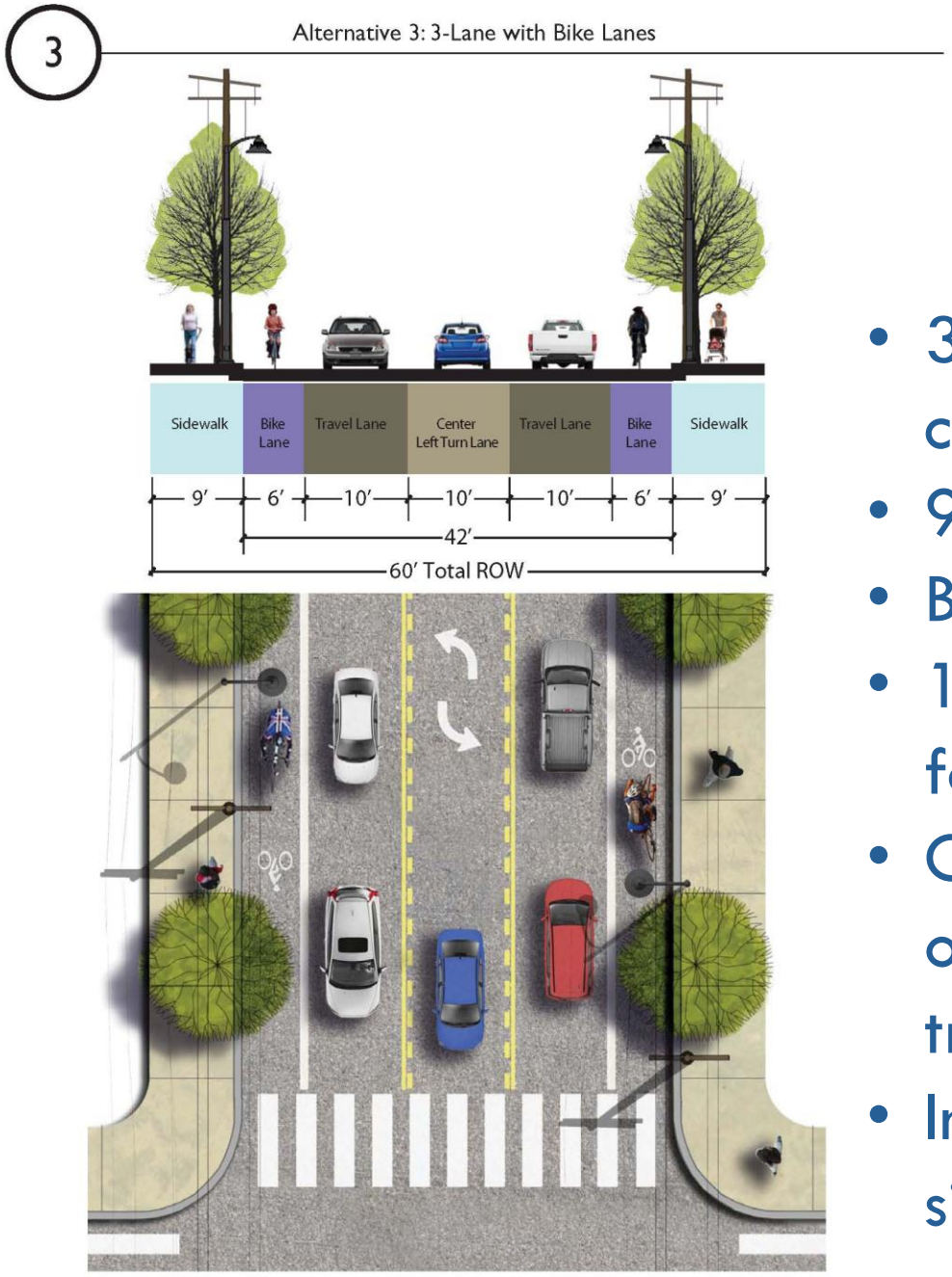
Alternative Concepts



4-Lane

- Maintains existing 4 travel lanes
- Left-turning vehicles block travel lanes
- 9’ sidewalks
- No bike lanes
- Maintains 11’ outside travel lane for buses

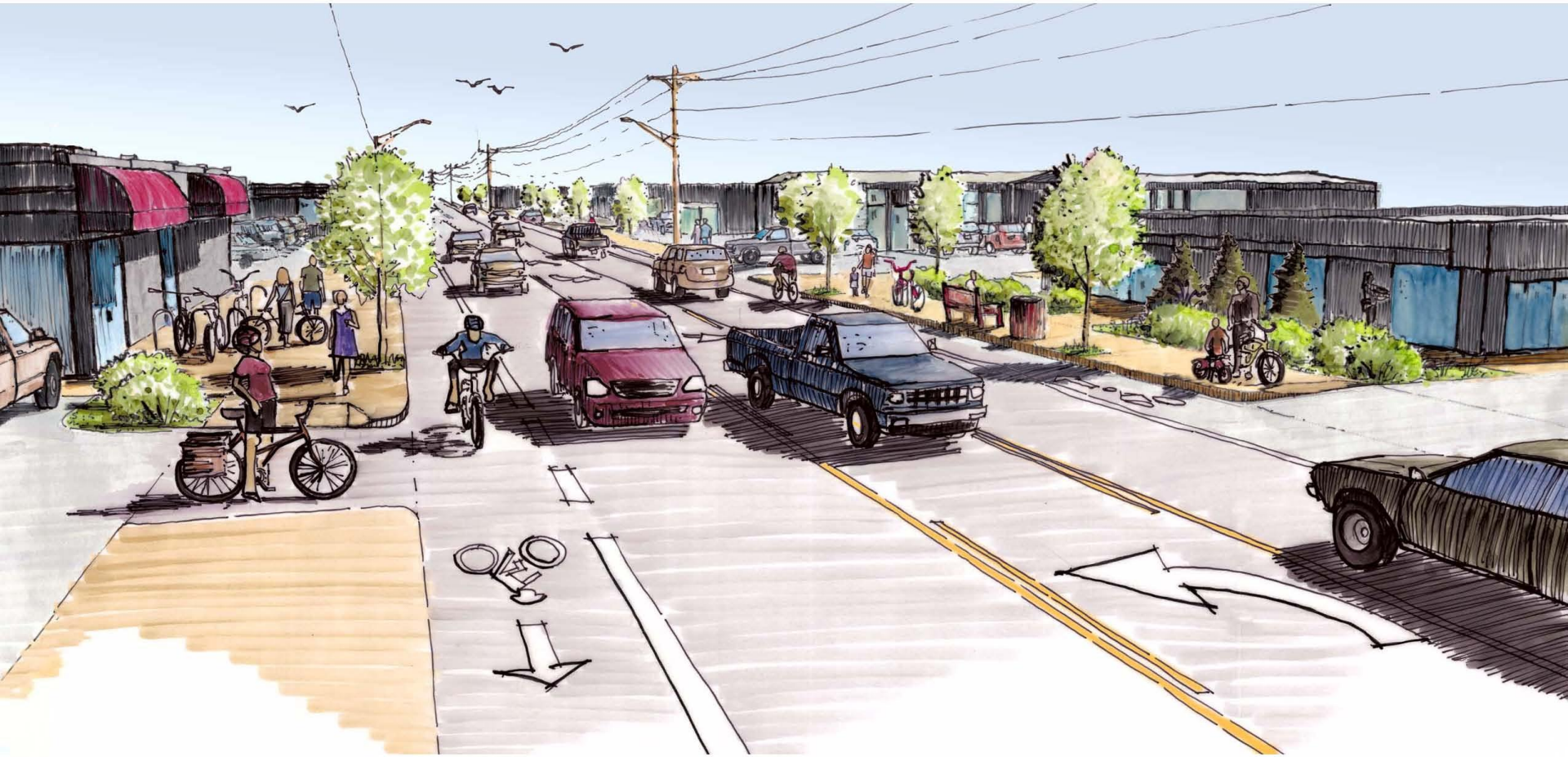
Alternative 1



3-Lane with Bike Lanes

- 3 travel lanes (1SB, 1NB, 1 center)
- 9’ sidewalks
- Bike lanes
- 10’ travel lanes are narrow for buses and trucks
- Center turn lane offers opportunities for design treatments
- Intersections and traffic signals would need to be reconfigured

Alternative 3



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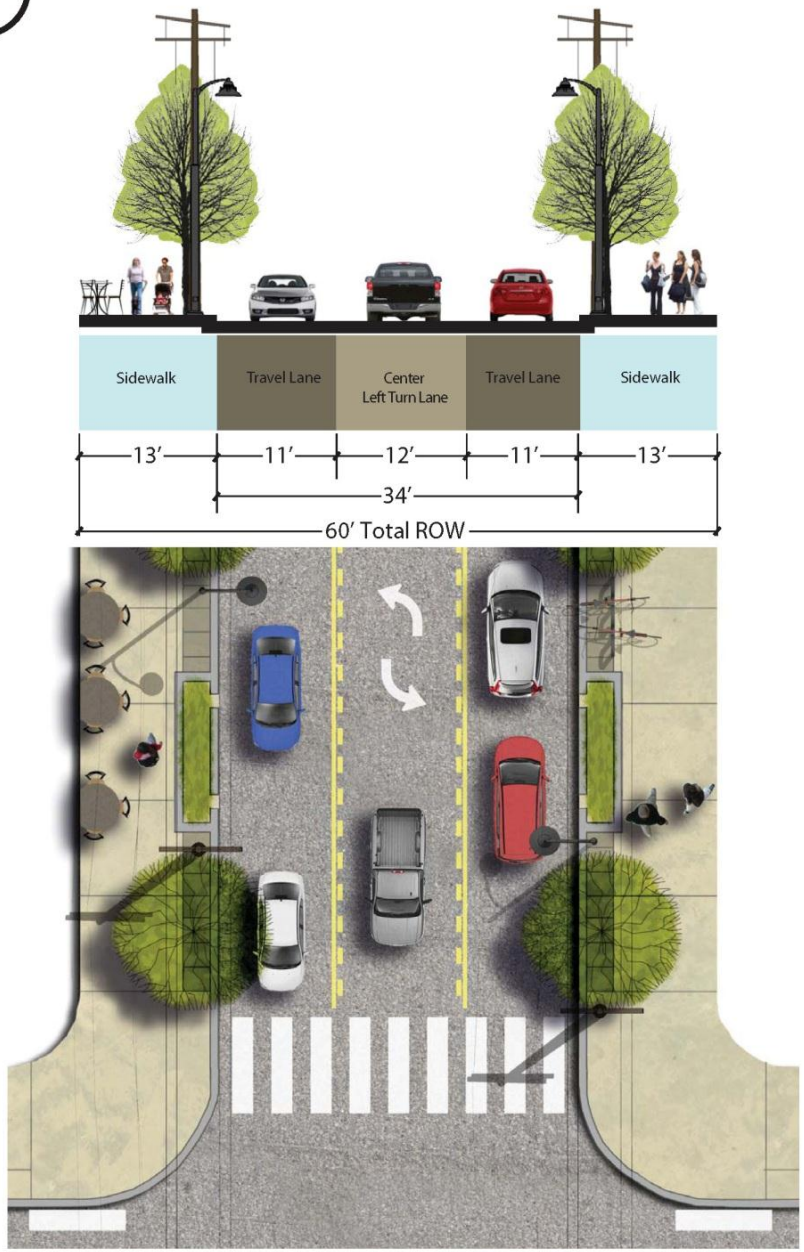
Alternative 5: 3 Lane with Wide Sidewalks



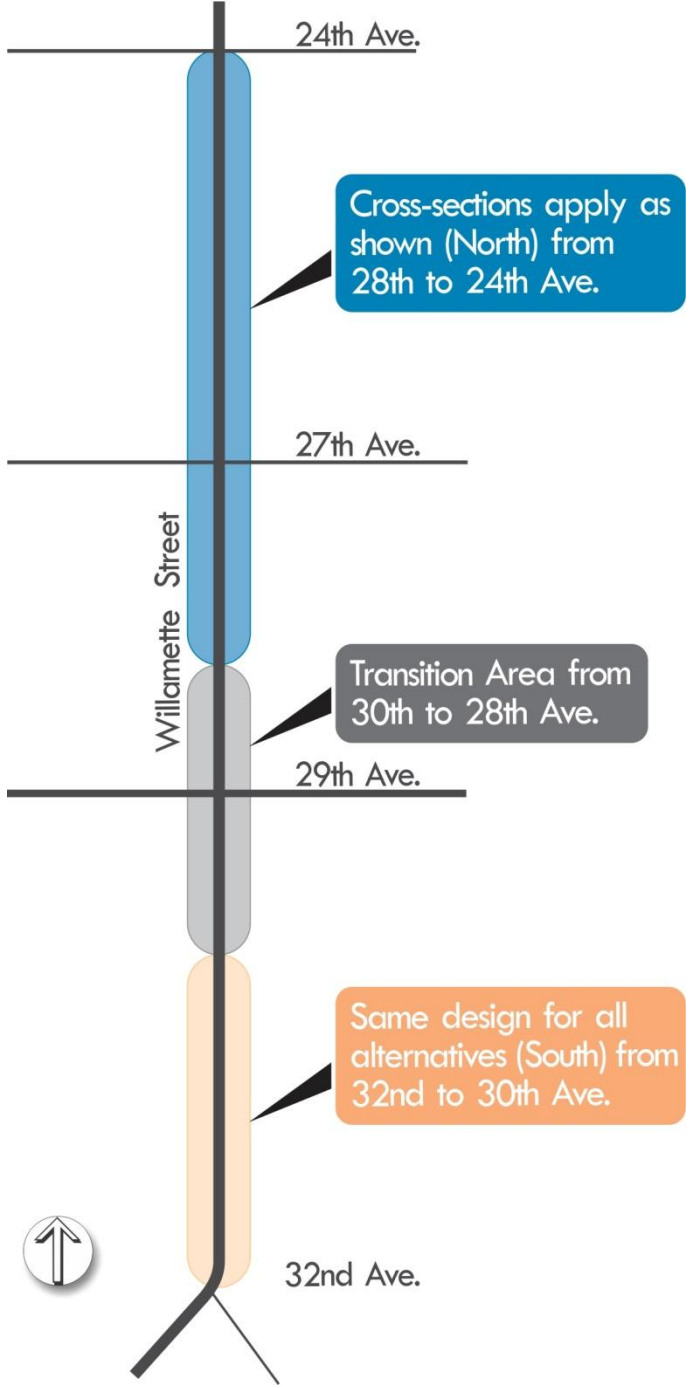
3-Lane with Wide Sidewalks

- 3 travel lanes (1SB, 1NB, 1 center)
- 13' sidewalks
- Wide sidewalks provide design treatment options
- No bike lanes
- Maintains 11' outside travel lane
- Center turn lane offers opportunities for design treatments
- Intersections and traffic signals would need to be reconfigured

Alternative 5

Corridor Overview

- Design for continuity in transition area near 29th Ave



Transportation Analysis

Transportation Analysis Overview

- 2018 P.M. peak hour traffic
- Intersection operations standard

  Citywide: LOS D Downtown: LOS E
- Traffic operations similar for Alts 3 & 5
- Multimodal Level of Service (LOS) for Auto, Pedestrian, Bicycle, Transit

Traffic Finding

- 3 lanes is not enough for peak traffic at 29th Ave intersection
- Level of Service F
- Modify design for 3-lane Alternatives to maintain 2 southbound lanes at 29th Ave

Design Modification at 29th Ave

- Applied to Alt 3 & 5
- 2 Southbound through lanes through to 32nd Ave
- Minimize capacity reduction at 29th Ave for p.m. peak direction traffic (southbound)
- Alt 3 would include bike lanes

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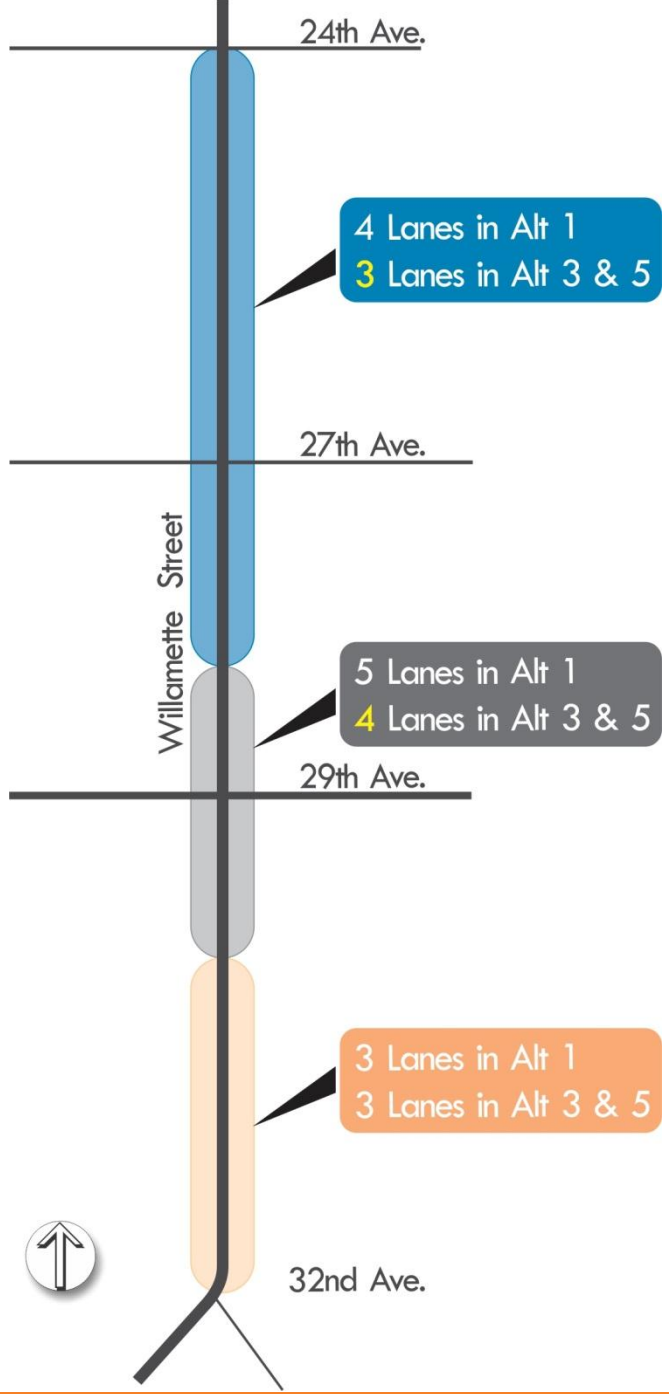
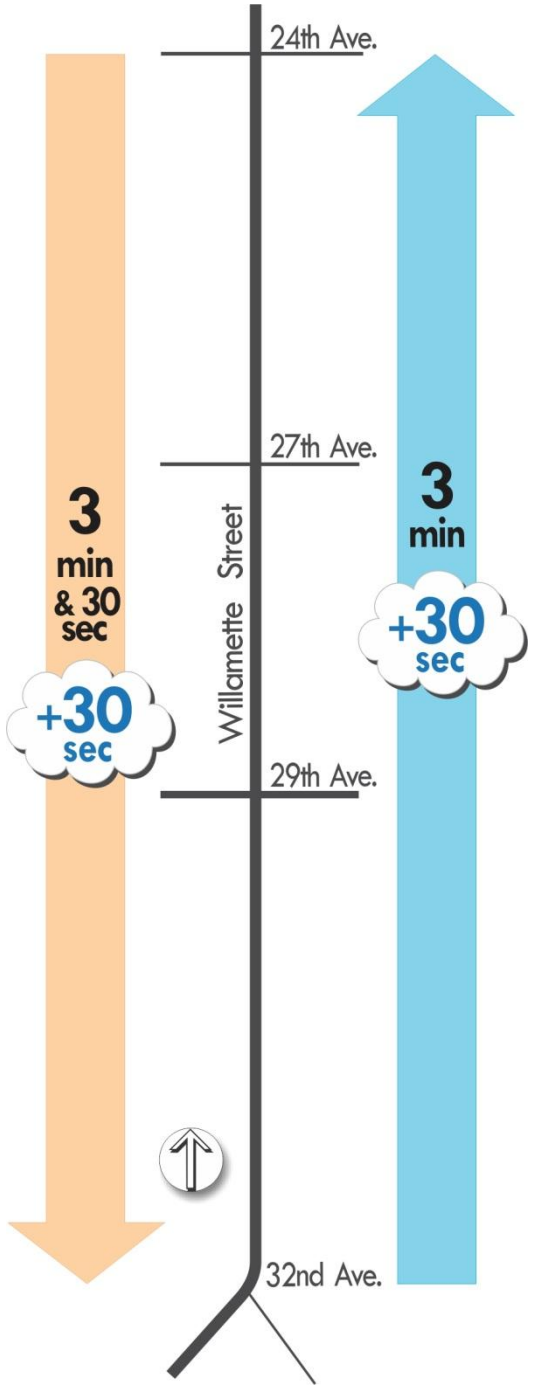
Motor Vehicle Lanes

- Modified design for Alt 3 & 5 would provide 4 lanes at 29th Ave intersection



Travel Time

- Average travel times between 24th and 32nd Ave would be ~30 seconds longer, southbound and northbound, for Alt 3 & 5 (compared to Alt 1)
- Travel time would be more reliable in Alt 1 (less variance)

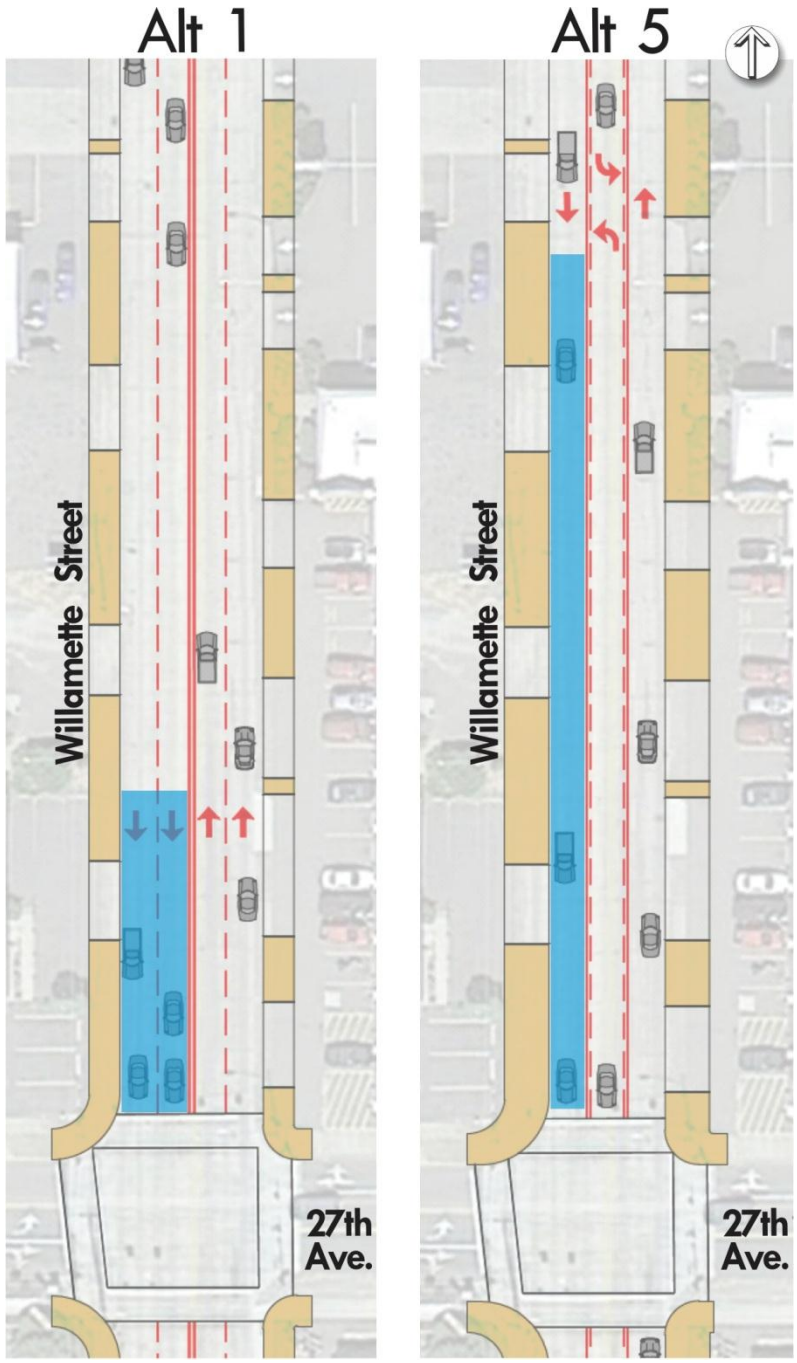


Intersection Operations

- 29th Ave intersection operates at LOS D with 5 lanes (Alt 1)
- 4 lanes may be adequate for peak traffic at 29th Ave intersection if LOS E (downtown standard) is accepted
- 3 lanes would be inadequate (LOS F)
- All other intersections operate with LOS D or better for all Alts

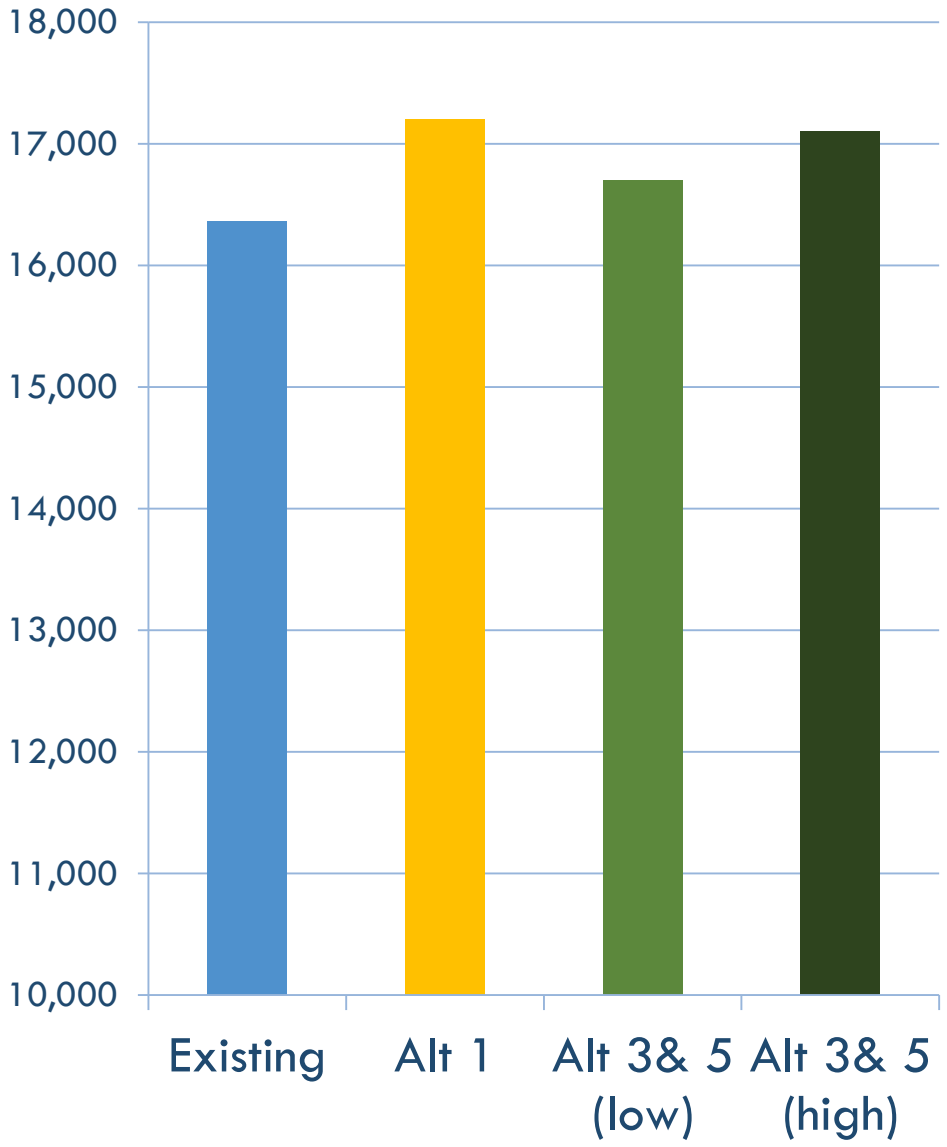
Vehicle Queuing

- Vehicle queues will ~double for Alts 3 & 5
- Illustration shown for southbound at 27th Ave.



Potential Traffic Shift in Alt 3 & 5

- Shift in average daily traffic away from Willamette St is estimated to be 100 to 500 vehicles in 2018
- 1-3% of daily traffic



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Potential Traffic Shift

- P.M. Peak hour shift in Alt 3 & 5 is estimated to be 25 to 100 vehicles

Where to?

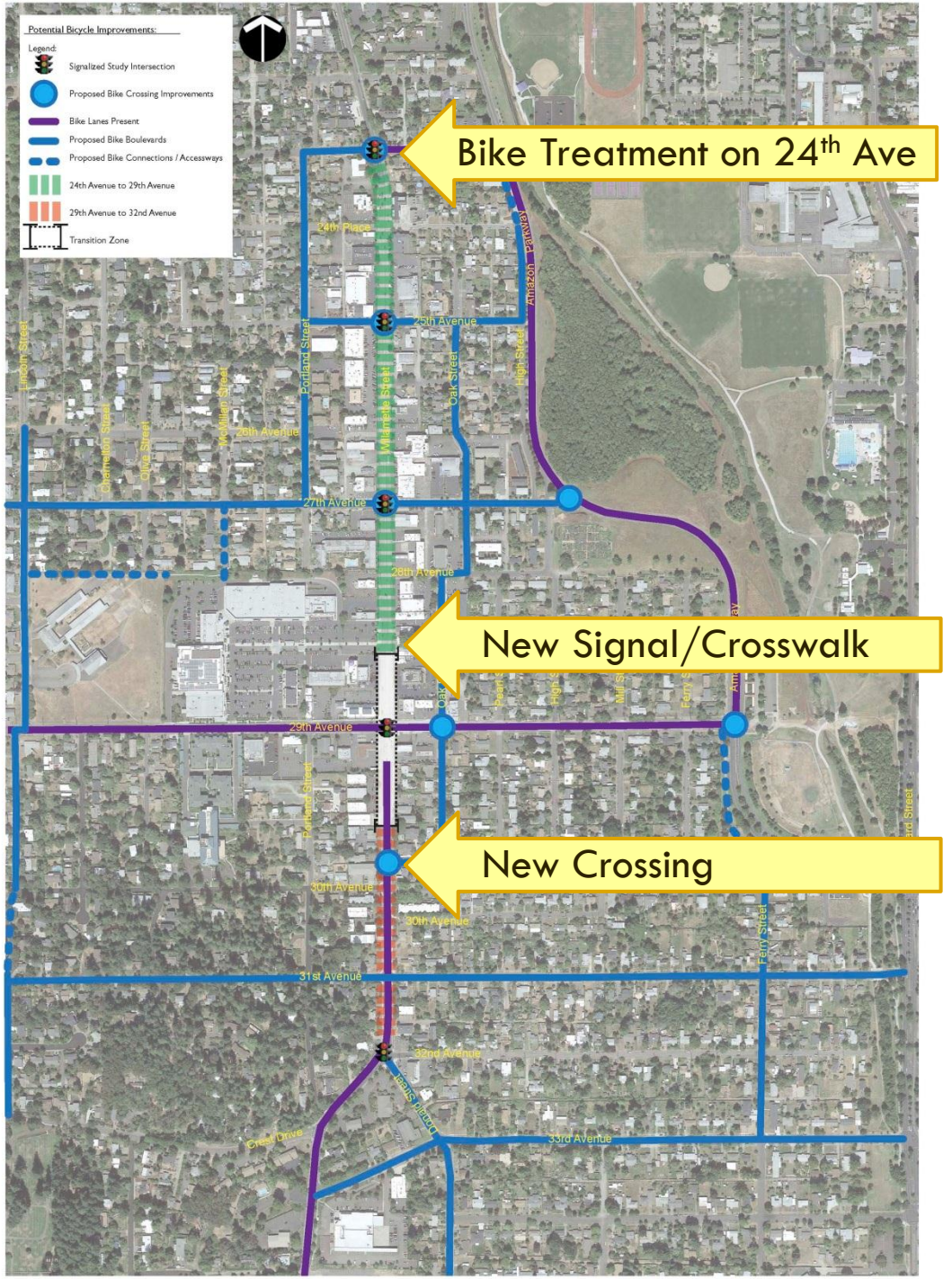
- East: ~2/3 east to Hilyard & Amazon
- West: ~1/3 west to Lincoln, Jefferson, Adams &Polk

Multimodal LOS

- Alternatives represent tradeoffs for level of comfort by mode of travel
- Automobile and transit modes: Alt 1 provides most speed and comfort
- Bicycles: Alt 3 (bike lanes) provides most comfortable option for travel by bicycle
- Pedestrians: Alt 5 (wider sidewalks)

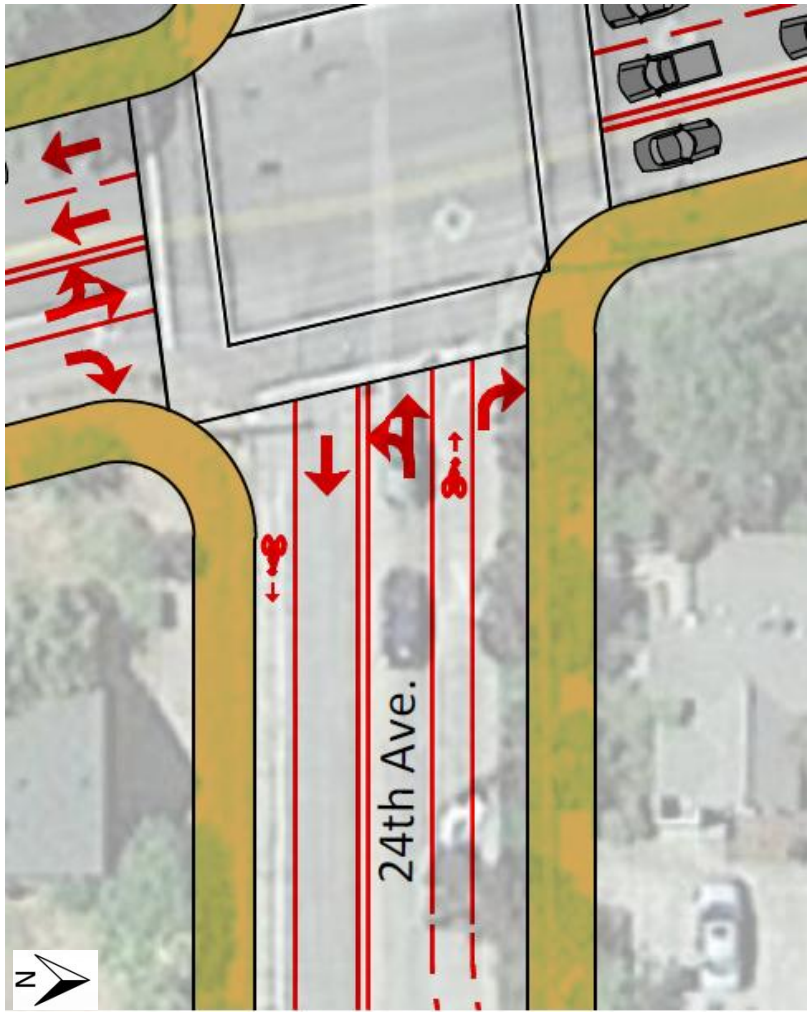
Proposed Design Refinements

Potential Crossing Enhancements

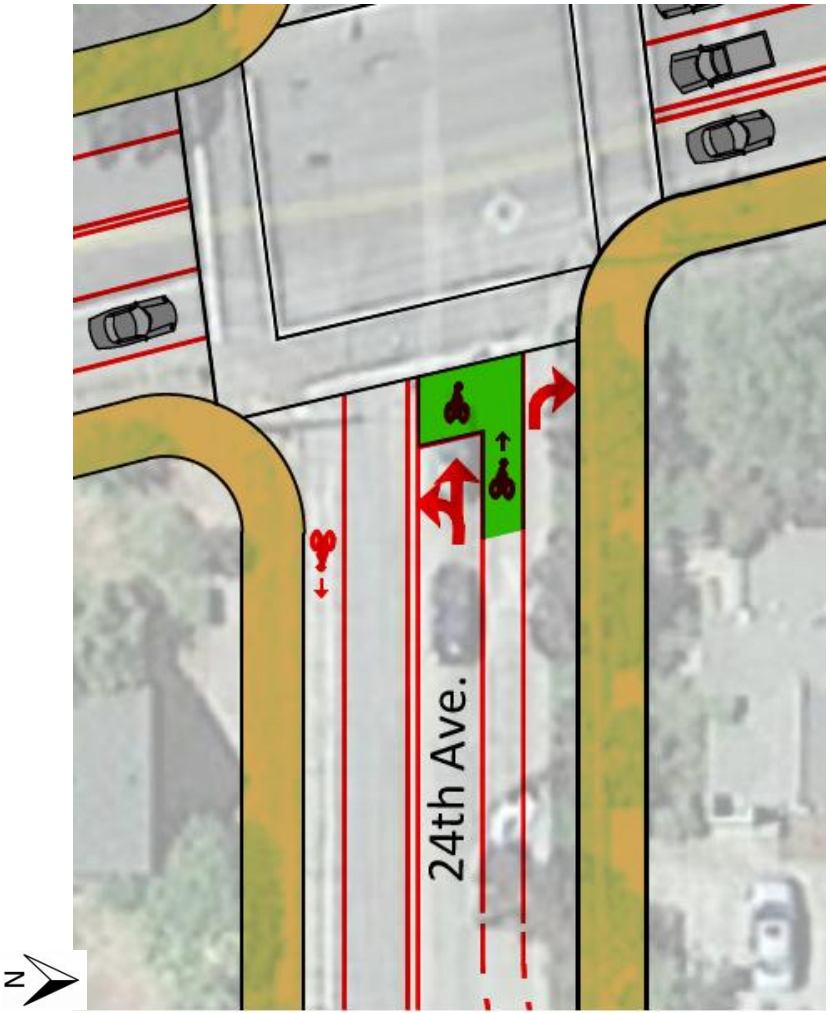


Design Option on 24th Ave

Alt 1 – Shared Lane



Alt 3 – with Bike Box



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Design Option at Woodfield Station

- New traffic signal (all Alts)
- Provides pedestrian crossing between 29th Ave and 27th Ave (~1,000 feet)
- Improves turning opportunities at Woodfield Station Driveway
- Close spacing of intersections requires further evaluation - Special design considerations & coordination with 29th Ave traffic signal

Design Option at 29th Place

- Crossing provided for bike route southbound from Oak St, where existing northbound bike lane ends
- Provides pedestrian crossing between 29th Ave and 32nd Ave (~1,500 feet)
- Higher priority without bike lanes on Willamette St (Alt 1 & 5)

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Potential Further Refinements

Further Refinements

- Intersection traffic controls (e.g., roundabouts, signals)
- Sidewalk characteristics (e.g., utilities, landscaping)
- Other crossing treatments
- Traffic signal design at Woodfield Station
- Bus pullouts

Enhance Sidewalk Environment

- Stormwater treatments
- Utility relocation
- Street lighting
- Bike parking
- District signing
- Landscaping/vegetation

- Limited options for 9’ sidewalk (Alt 1 & 3)
- Wider sidewalks (13’ in Alt 5) can provide more amenities (e.g., café seating)

Roundabouts

- Remain as option for 24th, 25th, 27th Ave intersections
- 29th Ave would require multi-lane roundabout
- Property impacts at intersections
- Design for emergency response
- Concerns about available capacity at 24th & 27th Ave approaches

Cost Estimates

Cost Estimates

- Alt 1: $4.1M
- Alt 3: $4.2M
- Alt 5: $4.8M

Included : $2.1M paving & stormwater project from 24th Ave to 29th Ave

Not included: $2.6M for utility relocation

Note: Costs shown are high-level planning estimates in 2013 dollars, subject to change.

Next Steps

Tier 2 Screening

- Meet with community and key stakeholders
- Brief City Council in June
- Analyze input on preferred cross-section and design refinements
- Refine design for preferred alternative

Group Discussion

What information did you hear that helps you select and refine an alternative?